Linux

Linux was first released in September 17, 1991 by Linus Torvalds. Strictly speaking Linux is just the kernel in the GNU/Linux operating system. Linux is the most installed OS in the world, that is mainly due to the fact that android use Linux as its OS. It is leading in pretty much all markets except for the desktop-market.

From a infosec perspective there are two reasons we should learn Linux. The first is that the majority of all servers in the world is running on Linux. And if we want to hack those servers we of course have to understand how they work. The second reason is that the vast majority of all hacking-tools are only available on Linux.

So in this chapter we are going to look at bit at some basic commands and basics of Linux. Of course your can write quite a few books about Linux, so this tiny little introduction is just way to get you started. And also, I am just a beginner myself so I am just writing stuff that I myself need to learn.

Although there is only one Linux Kernel there are many Linux Distributions, that is: different versions. That is because the GNU/Linux OS is a mix of GNU software and the Linux Kernel. The GNU/Linux OS can be packaged in a million different ways, with different software preinstalled, with different configurations, with different Graphical User Interface (GUI). The fact that you can configure the OS however you like has given rise to the many different versions. These different versions are usually called **distros**. There are hundreds of different distros. Some common ones are: Ubuntu, Debian, Redhat, CentOS and Arch.

So you probably wonder what the main differences are. Here is a list of some differences:

- Package management program.
- Speed and interval of release
- Desktop environment
- Default GUI
- Community
- Compilation of the Linux Kernel

So as you can see depending on the users needs you can choose the distro that fits you best. Some people want to have bleeding-edge (the latest updates - although a bit more unstable) and others prefer stability. Some people want a distro with higher degree of security. Others want a distro with only free software, others want distros specially made for kids, or for education, or for scientists. One distro that is common among pentesters is Kali Linux. It comes preinstalled with hundreds of different pentesting-related tools. It might not be the best distro for everyday use. But for pentesting is is really convenient. Of course you could just download the programs to your non-kali distro as you go along. But it might be just an unneccesary hassle for you.